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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/514,423

11/16/2004

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029267.55611US

6463

23911 7590 03/11/2010
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EXAMINER

HOANG, SON T

ART UNIT

PAPER NUMBER

2165

MAIL DATE

DELIVERY MODE

03/11/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/514,423	Applicant(s) NOMURA, TAKASHI	
	Examiner SON T. HOANG	Art Unit 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8-12, 14-17, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-12, 14-17, 20-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 7, 2010 has been entered.

Response to Amendment

2. **Claims 5-7, 13, 18-19, and 22-31** are canceled.

Claim 1-8, and 14-15 are amended.

Claims 1-4, 8-12, 14-17, and 20-21 are pending.

Response to Argument

3. Applicant's arguments with respect to the 35 U.S.C. 103(a) rejections of the pending claims have been fully considered but are moot in view of the new ground of rejections presented hereon.

First, Applicant argues towards **independent claim 1** regarding that Nakano does not teach or disclose "*as the map-related information provided in units of the individual divisions, at least one type of map-related information available at all levels;*

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and the one type of map-related information is used to display the map at a display device, the other type of map-related information contains information used in route search.”

The Examiner respectfully disagrees with the above remarks. Accordingly, Nakano teaches as the map-related information provided in units of the individual divisions, at least one type of map-related information available at all levels (*Figure 33 shows the skeleton of a map which is displayed on all scaled levels*) and another type of map-related information available at one or more specific levels but not all levels are provided separately from each other (*A cartographic file CF at a lower level shows a detailed road network. A cartographic file CF at a higher level shows only a rough road network, [0177]*). That is, map skeleton is available at all levels, and certain map information (i.e. detailed road network, and rough road network) is only available at a certain scale of the map.

Nakano further discloses:

the one type of map-related information is used to display the map at a display device (*Figure 33 shows the skeleton of a map which is displayed on all scaled levels*);

the other type of map-related information contains information used in route search (*The route search uses cartographic files CF at a plurality of levels from a lower level to a higher level. In this process, in the vicinities of the starting point SP and the destination point DP, the shortest route is searched for by using cartographic files CF at a lower level which show detailed road networks. In the area other than the vicinities of*

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the starting point SP and the destination point DP, the search uses cartographic files CF at higher levels which show rough road networks, [0139]).

Dependent **claims 2-4**, and **20-21** are also rejected for the similar reasons presented above.

New ground of rejections for the remaining claims are also introduced below.

The Examiner contends that all limitations as recited in the claims have been addressed in this instant Office action. Hence, Applicant's arguments do not distinguish over the claimed invention over the prior arts of record.

For the above reasons, the Examiner believed that rejections of this instant Office action are proper.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-4, 8-10**, and **20-21** are rejected under 35 U.S.C. 103(a) as being obvious over Nakano et al. (*Pub. No. EP 1134674, published on September 19, 2001; hereinafter Nakano*) in view of Ogaki et al. (*Pub. No. US 2002/0059024, filed on August 29, 2001; hereinafter Ogaki*).

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Regarding **claim 1**, Nakano clearly shows and discloses a map data processing apparatus (*Figure 1*), comprising:

a recording medium drive unit that receives a recording medium in which are recorded map data including a structure having the map-related information divided into units of a plurality of divisions into which the map is divided (*The first storage device 19 is typically composed of a storage device which is capable of rewriting data, such as a hard disk drive or a flash memory. The first database 11 1 is stored in the first storage device 19. The first database 11 1 is a group of data which contains at least one cartographic file CF which allows this terminal device 1 to function as a navigation system, [0043]*); and a structure having management information for the map-related information divided into units of the divisions (*Figure 7 shows the data structure of the unit header which contains management information about the unit data in the cartographic file CF. The unit header at least includes the unit ID, the version code, and the data sizes of the eight kinds of tables contained in the unit data. The unit ID is an identification number which uniquely specifies the unit U represented by the cartographic file CF, [0133]*), wherein:

an update data acquisition unit that obtains update data for the map-related information provided in units of the individual divisions (*When the user of the terminal device 1 wants to add a new cartographic file CF to the first storage device 19 or update an old cartographic file CF to a newer version, the user operates the input device 11 to activate the map request/receive function. Next, the user operates the input device 11*

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according to a menu screen displayed on the display of the output device 110 to enter the area and the level (hierarchical level) of the desired map, [0188]); and

a processing unit that updates the map-related information recorded in the recording medium in units of the individual divisions by using the update data obtained by the update data acquisition unit and the management information, and executes processing of the map data based upon the map-related information recorded in the recording medium, the update data obtained by the update data acquisition unit and the management information (*When the data processing portion 13 decides that the version code extracted from the master data MD is newer, it moves to the step S906 to extract only the data portion of the master data MD and stores the newer-version cartographic file CF in the first storage device 19. The old cartographic file CF in the first database 111 has thus been updated to a newer version, [0215]), wherein:*

as the map-related information provided in units of the individual divisions, at least one type of map-related information available at all levels (*Figure 33 shows the skeleton of a map which is displayed on all scaled levels*) and another type of map-related information available at one or more specific levels but not all levels are provided separately from each other (*A cartographic file CF at a lower level shows a detailed road network. A cartographic file CF at a higher level shows only a rough road network, [0177]); and*

the one type of map-related information is used to display the map at a display device (*Figure 33 shows the skeleton of a map which is displayed on all scaled levels*);

the other type of map-related information contains information used in route search (*The route search uses cartographic files CF at a plurality of levels from a lower level to a higher level. In this process, in the vicinities of the starting point SP and the destination point DP, the shortest route is searched for by using cartographic files CF at a lower level which show detailed road networks. In the area other than the vicinities of the starting point SP and the destination point DP, the search uses cartographic files CF at higher levels which show rough road networks, [0139]]*); and

the processing unit executes processing of the map data by using the map-related information in units of the individual divisions provided separately with the one type of map-related information and the other type of map-related information (*Figure 58*).

Ogaki then discloses:

a plurality of levels are defined, each in correspondence to one of a plurality of different scaling factors at which the map is rendered (*Figure 8*); and

a plurality of sets of the map-related information are provided in correspondence to the plurality of levels (*Figures 26A – 26D*).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Ogaki with the teachings of Nakano for the purpose of designating a zoom-in or zoom-out level, thereby allowing a desired map to be displayed using only the essential map data ([0010] of Ogaki).

Regarding **claim 2**, Nakano further discloses:

the map is divided into a plurality of first division units, the first division units are each divided into a plurality of second division units, a number of the second division units is equal among the individual first division units, and the divisions into which the map is divided each corresponding to one of the second division units (*Figure 2 shows a plurality of kinds of maps on different scales are prepared. The largest scale is referred to as level 0, the second largest scale as level "1", the third largest scale as level "2", and the smallest scale as level "3". As is thus clear, the cartographic data is composed of the four levels, levels "0" to "3", the level "0" being the largest scale. Further, a map at a higher level is referred to as a higher-level map and one at a lower level is referred to as a lower-level map. A map at a higher level shows a larger area in less detail. On the other hand, a map at a lower level shows a smaller area in more detail. Maps at each level are sectioned at equal intervals in the longitude and latitude directions, [0051]; and*

the management information contains a set of management information related to the plurality of second division units, provided in correspondence to each of the first division units (*Figure 7 shows the data structure of the unit header which contains management information about the unit data in the cartographic file CF. The unit header at least includes the unit ID, the version code, and the data sizes of the eight kinds of tables contained in the unit data. The unit ID is an identification number which uniquely specifies the unit U represented by the cartographic file CF, [0133]).*

Regarding **claim 3**, Nakano further discloses the management information further contains management information related to the plurality of first division units (*Figure 7 shows the data structure of the unit header which contains management information about the unit data in the cartographic file CF. The unit header at least includes the unit ID, the version code, and the data sizes of the eight kinds of tables contained in the unit data. The unit ID is an identification number which uniquely specifies the unit U represented by the cartographic file CF, [0133]*).

Regarding **claim 4**, Nakano further discloses:

the map is divided into a plurality of first division units at each level, the first division units are each divided into a plurality of second division units, the number of second division units is equal among the individual first division units, and the divisions into which the map is divided each corresponding to one of the second division units (*The largest scale is referred to as level 0, the second largest scale as level "1", the third largest scale as level "2", and the smallest scale as level "3". As is thus clear, the cartographic data is composed of the four levels, levels "0" to "3", the level "0" being the largest scale. Maps at each level are sectioned at equal intervals in the longitude and latitude directions, [0051]*);

the management information contains a set of management information related to the plurality of first division units provided in correspondence to each of levels, and also contains a set of management information related to the plurality of second division units provided in correspondence to each of the first division units (*Figure 7 shows the*

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data structure of the unit header which contains management information about the unit data in the cartographic file CF. The unit header at least includes the unit ID, the version code, and the data sizes of the eight kinds of tables contained in the unit data. The unit ID is an identification number which uniquely specifies the unit U represented by the cartographic file CF, [0133]).

Regarding **claim 8**, Nakano clearly shows and discloses a map data processing apparatus (*Figure 1*), comprising:

a recording medium drive unit that receives a recording medium in which are recorded map data including a structure having the map-related information divided into units of a plurality of divisions into which the map is divided (*The first storage device 19 is typically composed of a storage device which is capable of rewriting data, such as a hard disk drive or a flash memory. The first database 11 1 is stored in the first storage device 19. The first database 11 1 is a group of data which contains at least one cartographic file CF which allows this terminal device 1 to function as a navigation system, [0043]*); and a structure having management information for the map-related information divided into units of the divisions (*Figure 7 shows the data structure of the unit header which contains management information about the unit data in the cartographic file CF. The unit header at least includes the unit ID, the version code, and the data sizes of the eight kinds of tables contained in the unit data. The unit ID is an identification number which uniquely specifies the unit U represented by the cartographic file CF, [0133]*), wherein:

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an update data acquisition unit that obtains update data for the map-related information provided in units of the individual divisions (*When the user of the terminal device 1 wants to add a new cartographic file CF to the first storage device 19 or update an old cartographic file CF to a newer version, the user operates the input device 11 to activate the map request/receive function. Next, the user operates the input device 11 according to a menu screen displayed on the display of the output device 110 to enter the area and the level (hierarchical level) of the desired map, [0188]; and*

a processing unit that updates the map-related information recorded in the recording medium in units of the individual divisions by using the update data obtained by the update data acquisition unit and the management information, and executes processing of the map data based upon the map-related information recorded in the recording medium, the update data obtained by the update data acquisition unit and the management information (*When the data processing portion 13 decides that the version code extracted from the master data MD is newer, it moves to the step S906 to extract only the data portion of the master data MD and stores the newer-version cartographic file CF in the first storage device 19. The old cartographic file CF in the first database 111 has thus been updated to a newer version, [0215]), wherein:*

the map is divided into a plurality of division at each level, and each of the plurality of sets of map-related information, corresponding to a given level, is divided in units of the individual divisions into which the map is divided (*it is assumed in Figure 2 that maps on four scaling levels are prepared. In the description below, the largest scale is referred to as level 0, the second largest scale as level "1", the third largest scale as*

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level "2", and the smallest scale as level "3". As is thus clear, the cartographic data is composed of the four levels, levels "0" to "3", the level "0" being the largest scale, [0051]);

a connecting point at which the map-related information corresponding to one of two divisions is correlated to the map-related information corresponding to the other division is present at a geographically matching position within the two divisions, the two divisions respectively belonging to levels different from each other (*a higher-level cartographic file CF generally has lower coordinate resolution than a map expressed by a lower-level cartographic file CF. Therefore, as shown in FIG. 40, between lower-level and high-level cartographic files CF, two nodes N having different coordinates may be represented by the same coordinates because of a rounding error produced at the higher level, [0180]*); and

sets of information related to the connecting point contain common two-dimensional coordinate values indicating the position of the connecting point within the map in the map-related information corresponding to the two divisions (*Figures 40-41*);

Ogaki then discloses:

a plurality of levels are defined, each in correspondence to one of a plurality of different scaling factors at which the map is rendered (*Figure 8*); and

a plurality of sets of the map-related information are provided in correspondence to the plurality of levels (*Figures 26A – 26D*).

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two dimensional coordinate values of the connecting point at a given level further contain tow-dimensional coordinate values of the connecting point at a level at which the map is rendered in greater detail than the given level; and the processing unit executes processing of the map data by using the two dimensional coordinate values of the connecting point at a given level to which the two-dimensional coordinate values of the connecting point at a level at which the map is rendered in greater detail is attached (*Figure 31 shows an example of level bit assignments. It is assumed that the file name of a floor map is "AAA033G8" signifying that the building identification code is AAA, that the floor code (03) represents the third floor above ground, and that the zoom level is "3." The X- and Y-direction unit codes are expressed as "G" and "8" respectively, or "10000" and "01000" in binary notation- Because the next lower zoom level (i.e., of greater magnification) of the current floor map is "2," the corresponding level bit is "3" according to FIG. 28. That is, the changed bit on the next lower level is the third bit in the binary number. The unit codes of the shaded map block in FIG. 31 are (0, 1) following the level bit change, so that "10000"="GG" and "01100"="C." This gives an eight-byte file name of "AAA032GC."*), [0164]).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Ogaki with the teachings of Nakano for the purpose of designating a zoom-in or zoom-out level, thereby allowing a desired map to be displayed using only the essential map data ([0010] of Ogaki).

Regarding **claim 9**, Nakano further discloses the two-dimensional coordinate values are values corresponding to latitudinal and longitudinal values (*The world map of*

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Figure 3 is sectioned at intervals of 5 degrees 20 minutes in the latitude direction on the basis of latitude 0 degree. This world map is also sectioned at equal intervals of about 8 degrees in the longitude direction on the basis of longitude 0 degree, [0052]).

Regarding **claim 10**, Nakano further discloses the information related to the connecting point contains a parameter other than the two-dimensional coordinate values of the connecting point in addition to the two-dimensional coordinate values (even if a higher-level unit *U* has rounding errors in coordinates, the node records *NR* are recorded in the ascending orders of coordinates on the basis of the normalized longitude/latitude coordinates which do not contain the rounding errors. Accordingly, when the data processing portion 13 traces from a lower-level node *N* to a node *N* which is contained also in the parent unit *PN* and represents the same position, it can uniquely specify the corresponding node *N* in the parent unit *PU* according to the order of the node records *NR*, from among the nodes *N* which are recorded in the lower-level unit *U* and also in the parent unit *U* and which will be located at the same coordinates because of the rounding error on the higher level, [0181]).

Regarding **claim 20**, Nakano further discloses:

the map data are map display data; and the processing unit displays a map at a display unit by connecting the map data recorded in the recording medium with the update data obtained by the update data acquisition unit (*When the user of the terminal device 1 wants to add a new cartographic file CF to the first storage device 19 or update an old cartographic file CF to a newer version, the user operates the input device 11 to*

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activate the map request/receive function. Next, the user operates the input device 11 according to a menu screen displayed on the display of the output device 110 to enter the area and the level (hierarchical level) of the desired map, [0188]).

Regarding **claim 21**, Nakano further discloses:

the map data are route search data; and the processing unit executes route search processing by connecting the map data recorded in the recording medium with the update data obtained by the update data acquisition unit (Through the input device, the user requests the terminal device 102 to scroll the map, to change the scale, etc. The output device is mainly composed of a display and a speaker. The display displays a map as required. The display also displays the results of route search or route guide carried out by the data processing portion 1023. The speaker provides the user, through speech, with the results of the route guide process performed by the data processing portion 1023, [0239]).

6. **Claims 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (Pub. No. EP 1134674, published on September 19, 2001; hereinafter Nakano) in view of Ogaki et al. (Pub. No. US 2002/0059024, filed on August 29, 2001; hereinafter Ogaki), and further in view of Wilson et al. (Pat. No. US 6,985,929, filed on August 31, 2000; hereinafter Wilson).

Regarding **claim 11**, Nakano, as modified by Ogaki, does not disclose the parameter contains height information indicating a height of the connecting point.

However, Wilson discloses the parameter contains height information indicating a height of the connecting point (*Figure 19 illustrates the flow of operations in Web-based client applet 62 to generate 3D model of the "features" in the current AOI. The Web-based client applet 62 retrieves for point "features" information from a digital terrain elevation database at 100. Then at 102, the Web-based client applet 62 retrieves for area and line "features" two dimensional geospatial data, such as VPF, from server 52a. The Web-based client applet 62 regenerates the "relative" geometry of the two dimensional data at 104. Then, at 106 the three dimensional image is generated using the regenerated two dimensional data of 104 and the digital terrain elevation information of 100, [Column 16, Lines 32-45]*).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Wilson with the teachings of Nakano, as modified by Ogaki, for the purpose of developing systems capable of immediate and efficient distribution and access to complex data having spatial and temporal information (i.e., geospatial data) ([Column 2, Line 67 → Column 3, Line 3] of Wilson).

Regarding **claim 12**, Wilson further discloses the parameter contains time information related to generation and update of the map-related information provided in units of the individual divisions (*A client initiates an update check. When a user logs onto the Gemstone server 52b (via Browser client 40), a request is sent to the server 52a via ORB-to-ORB communication (i.e., interface system 60a, 60b or 60 in case firewall 70 exists) to check for any update. A check, on whether client server 52b needs*

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an update, from server's 52b client history log 122 is based on a time stamp and the state of the "feature" in terms of its location and "attributes", ([Column 19, Lines 14-21]).

7. **Claims 14-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (Pub. No. EP 1134674, published on September 19, 2001; hereinafter Nakano) in view of Narahara (Pub. No. US 2002/0007367, filed on July 9, 2001; hereinafter Narahara).

Regarding **claim 14**, Nakano clearly shows and discloses a map data processing apparatus (*Figure 1*), comprising:

a recording medium drive unit that receives a recording medium in which are recorded map data including a structure having the map-related information divided into units of a plurality of divisions into which the map is divided (*The first storage device 19 is typically composed of a storage device which is capable of rewriting data, such as a hard disk drive or a flash memory. The first database 11 1 is stored in the first storage device 19. The first database 11 1 is a group of data which contains at least one cartographic file CF which allows this terminal device 1 to function as a navigation system, [0043]*); and a structure having management information for the map-related information divided into units of the divisions (*Figure 7 shows the data structure of the unit header which contains management information about the unit data in the cartographic file CF. The unit header at least includes the unit ID, the version code, and the data sizes of the eight kinds of tables contained in the unit data. The unit ID is an*

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identification number which uniquely specifies the unit U represented by the cartographic file CF, [0133]), wherein:

an update data acquisition unit that obtains update data for the map-related information provided in units of the individual divisions (*When the user of the terminal device 1 wants to add a new cartographic file CF to the first storage device 19 or update an old cartographic file CF to a newer version, the user operates the input device 11 to activate the map request/receive function. Next, the user operates the input device 11 according to a menu screen displayed on the display of the output device 110 to enter the area and the level (hierarchical level) of the desired map, [0188]; and*

a processing unit that updates the map-related information recorded in the recording medium in units of the individual divisions by using the update data obtained by the update data acquisition unit and the management information, and executes processing of the map data based upon the map-related information recorded in the recording medium, the update data obtained by the update data acquisition unit and the management information (*When the data processing portion 13 decides that the version code extracted from the master data MD is newer, it moves to the step S906 to extract only the data portion of the master data MD and stores the newer-version cartographic file CF in the first storage device 19. The old cartographic file CF in the first database 111 has thus been updated to a newer version, [0215]), wherein:*

the map-related information provided in units of individual divisions is separated into different types of map-related information to be individually managed (*As shown in*

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Figure 7, the background data is composed of a basic background table and a detailed background table. As can be clearly seen from Figure 8(a), the basic background table is a group of graphic data which is used as the base when displaying the background of the map, which shows a river, a railroad, and a green belt, for example, [0078]. As clearly shown in Figure 23(a), the basic character/symbol table contains character strings and map symbols which schematically show the map the unit U covers, which may include the names of rivers and roads, map symbols, etc, [0097]).

Narahara then discloses:

map-related information having the highest priority among the different types of map-related information is prepared in order not to exceed a predetermined upper data size limit (*if it is determined at the step S44 that the size of the total occupation space is larger than the space limit, the process unit 103 proceeds to a step S45, and carries out a size reduction process to reduce a size of a selected element. This size reduction process can be performed to all the selected elements, or a part of the selected elements such as an element or a plurality of elements that are most recently selected by the process unit 103, [0109]); and*

the processing unit executes processing of the map data by using the map-related information provided in units of individual divisions where the map-related information having the highest priority among the different types of map-related information is prepared in order not to exceed the predetermined upper data size limit (*the process unit 103 reduces a size of a text element, by reducing its font size by one*

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point. The process unit 103 reduces a size of an image element, by adjusting resolution of the image element. For example, the process unit 103 adjusts the resolution of the image element so that the size of the image element is reduced by 10%, [0109]).

It would have been obvious to an ordinary person skilled in the art at the time of the invention was made to incorporate the teachings of Narahara with the teachings of Nakano for the purpose of reducing a total information size of document information composed of a plurality of elements, storing as much necessary information as possible for understanding contents of the document information ([Abstract] of Narahara).

Regarding **claim 15**, Narahara further discloses if the size of the map-related information having the highest priority exceeds the predetermined upper limit after update, at least map-related information corresponding to an excess beyond the predetermined upper limit to the size, which results from the update, is managed as map-related information with lower priority relative to the highest priority (*If it is determined at the step S52 that the significance level of the element is the level 2, the process unit 103 proceeds to a step S54, and checks whether the element is a text element. If it is determined at the step S54 that the element is the text element, the process unit 103 keeps the element. On the other hand, if it is determined at the step S54 that the element is a non-text element such as an image, the process unit discards the element, at a step S55, [0118]).*

Regarding **claim 16**, Narahara further discloses the map-related information with the highest priority includes at least information used to display the map at a display

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device (*the process unit 103 reduces a size of a text element, by reducing its font size by one point. The process unit 103 reduces a size of an image element, by adjusting resolution of the image element. For example, the process unit 103 adjusts the resolution of the image element so that the size of the image element is reduced by 10%, [0109]*).

Regarding **claim 17**, Narahara further discloses:

the map-related information with the highest priority includes at least information used to display the map at a display device; and the map-related information with the lower priority relative to the highest priority includes information that enables display of a more detailed map at the display device, compared to the map displayed by using the map-related information with the highest priority (*the process unit 103 reduces a size of a text element, by reducing its font size by one point. The process unit 103 reduces a size of an image element, by adjusting resolution of the image element. For example, the process unit 103 adjusts the resolution of the image element so that the size of the image element is reduced by 10%, [0109]*).

Conclusion

8. These following prior arts made of record and not relied upon are considered pertinent to Applicant's disclosure:

Mikuriya et al. (*Pub. No. US 2002/0091485*) teaches map data processing apparatus and method.

Kida (*Pub. No. US 2002/0070981*) teaches position related information presentation system, position related information presentation method and recording medium recording control program thereof.

The Examiner requests, in response to this Office action, support(s) must be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the Examiner in prosecuting the application.

When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Contact Information

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Son T. Hoang whose telephone number is (571) 270-1752. The Examiner can normally be reached on Monday – Friday (7:00 AM – 4:00 PM).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Neveen Abel-Jalil can be reached on (571) 272-4074. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2165

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Son T Hoang/
Examiner, Art Unit 2165
March 10, 2010

/Neveen Abel-Jalil/
Supervisory Patent Examiner, Art Unit 2165